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TAX·FEATURES

U.S. Family's Federal Tax Bill Will Hit $7,551 for Fiscal '87

A moderate-income family—one worker earning $29,000 solely from wages with a spouse and two dependent children—faces a tax bill of $7,551 for fiscal year 1987. That covers the family's share of direct and indirect Federal taxes. Add to this their $1,596 share of the Federal deficit, and the family pays $9,147 to support the estimated $1.02 trillion Uncle Sam plans to spend in fiscal year 1987.

Economists at the Tax Foundation use this prototypical family as a way of showing where the average American household's tax dollars go. Assuming that $7,551 tax bill is allocated to cover the family's whole share of Federal spending, the following spending items stand out.

"Income security" costs the most—$332.8 billion. This comprises Social Security and Federal employee retirement and disability, unemployment insurance, housing assistance, and other programs. The Federal

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There Never Was a Budget That Couldn't Be Cut, CBO Reconfirms

In the waning years of the Reagan presidency, there is talk in Washington of the tax increases that will be necessary to pay for Federal programs and shrink the budget deficit. It is fashionable these days to say that spending has been cut so much in the 1980s that there is no room to prune it any more. Another favorite argument is that the discretionary part of the budget is so small that cuts would hardly dent the deficit.

The arrival of the first trillion dollar budget should make one wary of claims that Federal spending is so drum tight that no new savings can be found. The old budgeter's refrain, "I never saw a budget that couldn't be cut," applies to the current predicament. A recent report by the Congressional Budget Office (CBO) convincingly demonstrates that sizable cuts can be made in a prudent and responsible manner. The CBO report identifies almost 70 major options for reducing Federal expenditures. According to CBO, most of the options have been proposed—but not adopted—in the past; none, however, is "so extreme as to be implausible."

Because adoption of one option might preclude implementation of another, it is not possible to compute the total savings that might be realized. Nevertheless, some useful conclusions can be drawn concerning the opportunity for significant deficit reduction in the years ahead.

- In the short run—this year and next—the Gramm-Rudman-Hollings deficit targets cannot be met by spending cuts alone. Program cutbacks often produce delayed outlay reductions which show up in later budgets. For example, a slowdown in defense procurement would yield modest outlay savings in the first year or two, but much larger amounts in the outyears.
- For this reason, significant deficit reduction can be best achieved in a multiyear framework. Over a five-year period, the CBO options could lower Federal outlays by hundreds of billions of dollars, even after adjustments were made for mutually exclusive proposals.
- The Gramm-Rudman-Hollings target of a balanced budget in the 1991 fiscal year can be met

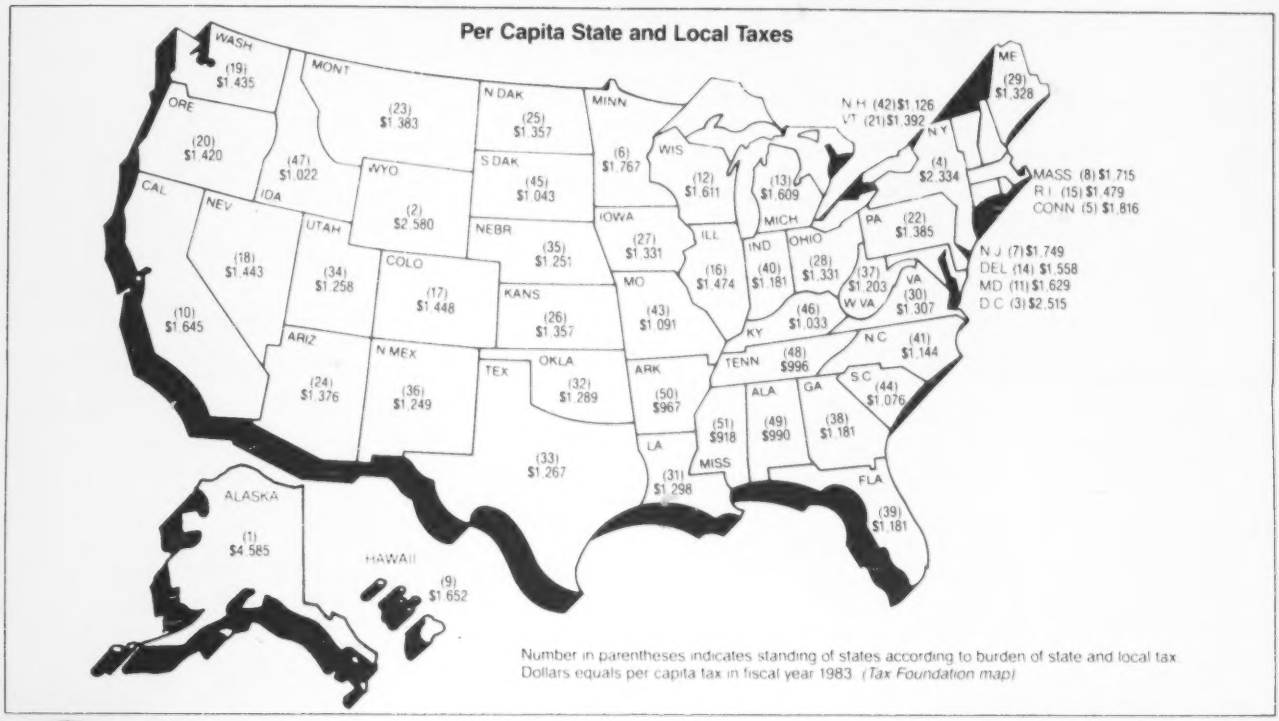
(Continued on page 3)

How the Federal Government Will Spend A Worker's Tax Dollars in Fiscal 1987[a]

Function	Worker's share: Amount	Worker's share: Percent of total	Total spending (millions)
Income security[b]	$2,387	31.61	$ 332,770
National defense	2,024	26.81	282,246
Net interest	986	13.06	137,461
Health[c]	798	10.57	111,279
Agriculture	223	2.95	31,084
Education, training, employment, and social services	214	2.83	29,808
Transportation	194	2.57	27,017
Veterans' benefits and services	191	2.53	26,679
International affairs	105	1.39	14,607
Natural resources and environment	100	1.32	13,857
General science, space, and technology	68	.90	9,523
Commerce and housing credit	66	.88	9,300
Administration of justice	60	.79	8,293
General government	49	.65	6,840
Community and regional development	44	.59	6,167
Energy	27	.36	3,787
General purpose fiscal assistance	14	.18	1,944
Total[d]	$7,551	100.00	$1,015,572
Exhibit:			
Payments for individuals	3,338	44.21	465,338

[a] In this example, the worker is the sole source of support for a spouse and two dependent children, and earns $29,000 per year.
[b] Includes social security, Federal employee retirement, unemployment compensation, housing assistance, food and nutrition assistance; excludes veterans' income security.
[c] Includes Medicare, Medicaid, and others; excludes veterans' hospital and medical care.
[d] After deducting $37,091 million in undistributed offsetting receipts not classified by function.
Source: Tax Foundation computations, based on Federal Budget presented January 5, 1987 (Office of Management and Budget) and tax laws from Treasury Department.

Recent Tax Hikes Plus Base Increases Cause Big Jump in State-Local Receipts



Number in parentheses indicates standing of states according to burden of state and local tax. Dollars equals per capita tax in fiscal year 1983. *(Tax Foundation map)*

State-local taxes scored a sizable 8.9% increase, rising to $366.9 billion in fiscal year 1985. This represented a jump of more than $30 million.

Excluding unemployment taxes, state-local collections reached $349.8 billion in fiscal 1985. After moving up sharply in fiscal 1984, general tax collections of state and local governments registered a 9.2 percent increase in 1985.

Even though some states actually cut taxes in FY 85, tax hikes enacted in recent years combined with continuing growth in tax bases buoyed collections for state and local governments overall.

Corporate income tax levies and general sales taxes registered the sharpest climb. The $19.2 billion brought in from corporate profits taxes in 1985 represented a rise of 12.4 percent. General sales and gross receipts taxes placed second, reaching $84.3 billion, an increase of 12.1 percent.

Property taxes, while remaining the largest revenue source at the state-local level, grew by a more modest 7.6 percent, to $103.8 billion. Personal income taxes, some the targets of recent tax cut proposals, increased by 8.5 percent, reaching $70.1 billion.

State and local levels of government grew at roughly the same rates in 1985—9.4 percent and 9.0 percent, respectively. Over the last 10 years, however, state tax collections sharply outpaced local tax growth—169 percent to 119 percent.

On a per capita basis, state-local taxes averaged $1,465, well over twice the $664 level prevailing in 1975. In fact, in only six states—California, Hawaii, Idaho, Nevada, South Dakota, and Vermont—did state-local taxes per capita less than double in the decade.

As state and local taxes have risen in dollar terms, so have tax bases. Personal income growth outpaced taxes during the 1975-85 period. As a result, state-local taxes expressed in relation to personal income fell by almost 6 percent for the period. Taxes declined from $123 per $1,000 of personal income in 1975 to $116 per $1,000 in 1985.

The states with the largest percentage drops were California (-20 percent), South Dakota (-19 percent), New Hampshire (-19 percent), and Massachusetts (-18 percent).

On the other hand, Alaska's taxes more than doubled as a percentage of personal income (up 119 percent). Other states with high tax burdens in relation to personal income were Wyoming ($210 per $1,000), New York ($163), and the District of Columbia ($148).

The lowest taxes by this measure were in New Hampshire ($87 per $1,000 of personal income), Missouri ($90), South Dakota ($94), Florida ($96), Tennessee ($96), and Arkansas ($99).

The above map provides details on per capita state/local taxes.

For the complete table detailing state-local tax collections by state per capita and per $1,000 of personal income, FY75 and FY85, please write to Tax Foundation.

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Tax Foundation
One Thomas Circle, N.W., Suite 500
Washington, D.C. 20005
(202) 822-9050

TAX FOUNDATION
ONE THOMAS CIRCLE, N.W., SUITE 500

50th Anniversary Year

WASHINGTON, DC 20005
TELEPHONE (202) 822-9050

FEDERAL TAX POLICY MEMO

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Increase in the Cost of Capital: Quantitative and Other Results of the Tax Reform Act of 1986

By Ernest S. Christian, Jr., and David G. Raboy

The two dominant ingredients of the Tax Reform Act of 1986 were a substantial reduction in marginal tax rates and a drastic reduction in capital cost recovery through repeal of the ITC and the cutback of ACRS depreciation for new investment in capital equipment in the United States. If the Treasury's original "tax reform" hypothesis turns out to be true, the gain to the economy from an assertedly more efficient allocation of resources will significantly outweigh the loss to the economy from increasing the cost of new investment in capital equipment. If that hypothesis proves false, the 1986 Act should cause *both* a lesser amount of new investment in capital equipment *and* a lesser overall level of output than would otherwise be expected to occur.

The one most critical and quantitatively answerable question now is: *by how much did the 1986 Act actually increase the cost of capital for new investment in productive capital equipment in the United States?* By any measure, the 1986 Act enormously increased the cost of capital for new investment in equipment.[1] When calculated using Treasury's methodology, the range of increase for 22 illustrative ADR classes of equipment was from 49.5 to 77.8 percent.[2] It is not obvious how efficiency gains could be projected to offset the effects of an increase of that magnitude in the cost of capital for *new* investment in equipment. Furthermore, the 1986 Act also reduced by about 25 percent the effective tax rate on future income from *old* investment in equipment.[3] This large bias against new investment in favor of old is part of a pattern throughout the 1986 Act.

[1] Throughout, the references herein are to the cost of capital for equipment purchased by corporations.

[2] Increases of these general orders of magnitude are confirmed by the recently issued 1987 Economic Report of the President which indicates that under the "new view" of the cost of capital, on a weighted average basis for all industries, the 1986 Act increased the cost of capital for equipment by 62.2 percent.

[3] When fully phased in, the 1986 Act will have reduced by 25 percent the marginal corporate tax rate on income derived in the future from investments that were allowed the ITC and full ACRS depreciation under prior law.

ABOUT THE AUTHORS

Messrs. Christian and Raboy are, respectively, the senior tax partner and the chief economic consultant of Patton, Boggs & Blow, Washington, D.C. Mr. Christian is a former Deputy Assistant Secretary of the Treasury (Tax Policy). Dr. Raboy is the former Legislative Director for Senator William Roth. The opinions expressed are those of the authors and do not necessarily reflect those of the Tax Foundation.

Background: Failure to Focus on the Critical Issue

From the outset of the tax reform debate, Treasury steadfastly insisted that the cost of capital should be measured by taking into account the projected tax rate reductions for both individuals and corporations as well as the changes in capital cost recovery. The problem is not with Treasury's basic methodology which is reasonable provided the calculations are properly made and presented. Rather, the problem is that the most meaningful results of Treasury's methodology seem not to have been presented to the tax-writing committees during their deliberations on the 1986 Act.

In the Senate, in response to oft-repeated and genuine concerns by many Members of Congress about tax reform's potential adverse effects on international competitiveness, the Treasury did supply estimates of the aggregate change in the cost of capital for all corporate investment combined—including land and inventories, although neither was particularly related to the concerns about international competitiveness or adversely affected by the repeal of the ITC and the cutback of ACRS depreciation. The huge increase in the cost of capital for equipment was never separately stated. The real concerns of the Congress about capital equipment and international competitiveness appear to have been lost in the shuffle. Consequently, it appears that the Congress never really came to grips with the issue that may most significantly alter trade and international capital flows as well as the overall long-term growth potential of the economy.

Measuring the Cost of Capital

The 1986 Act radically changed the two major elements of business taxation—tax rates and the capital cost recovery and related provisions. In order to take account of both, the model used here defines the "cost of capital" as the pre-tax rate of return needed to produce a given after-tax, real rate of return for the investment in question. The model makes the standard assumption that a 4 percent real after-tax "hurdle" rate of return is necessary to justify any investment being made. The "tax wedge" is the excess of the cost of capital over the hurdle rate. An increase (or decrease) in that tax wedge increases (or decreases) the cost of capital. Like the Treasury model, the model used here necessarily defines the pattern of income the asset is expected to produce over time. A 4 percent inflation rate is assumed. Corporations are assumed to be one-third financed by debt. All mathematical expressions and data were chosen to replicate as closely as possible Treasury methodology as found in public documents. (See Appendix.)

The calculations reflect repeal of the ITC, the cutback in ACRS depreciation, changes in corporate tax rates, changes

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in ordinary income and capital gains tax rates for individuals, state and local income taxes at both the corporate and individual level, and local property taxes.

Increase in Cost of Capital Equipment Capital

The cost of capital for new investment in equipment was calculated under pre-1986 Act law and under fully phased-in 1986 Act law. The table on this page shows the change in the cost of capital for equipment in each of 22 industries defined by ADR class.[4] Relative to pre-1986 Act law, the range of increase was from 49.5 percent to 77.8 percent. The increase exceeded 70 percent in three classes, 60 percent in seventeen classes, and 50 percent in twenty-one classes.

The chart on page 3 shows the cost of capital for new investment in equipment in five industries *before* and *after* the 1986 Act.

Understated Capital Cost Increases

Astoundingly large as they are, these increases in the cost of capital for new investment in equipment may actually be understated. First, if the same calculations were made for the period of the 1986 Act transition *after* the ITC was repealed and the other cost recovery changes are effective, but *before* the tax rate reduction is fully in effect, the increase in the cost of capital would be even greater. Second, these calculations do not reflect the new "capitalization" provisions in the 1986 Act which have the effect of further deferring depreciation deductions and increasing the cost of capital for equipment. Third, while not quantifiable in these mathematical comparisons, the preference in the 1986 Act for old investment should weigh in the balance against new investment somewhat the same as a further increase in its cost.

Lower Productivity Gains

Absent future tax changes to correct the imbalance, the cost of capital for new investment in equipment will always in the future be higher than before the 1986 Act was enacted. Accordingly, there should be a permanently lower level of net new investment in equipment in the United States. The rate of growth in overall new investment in equipment in the United States should be smaller because under the 1986 Act fewer new investments will produce the requisite after-tax hurdle rate of return. Compared to the past, many investments that were profitable under prior law will no longer be made. As a consequence, there should be lower productivity gains than would otherwise be the case and, all else being equal, an erosion of U.S. competitiveness in the manufacturing sector. Taken in isolation, there should also be a deterioration in the terms of trade for manufactured goods due to the new relative cost disadvantage of the productive processes in the United States.

Cost of Capital For Twenty-Two Illustrative ADR Classes of Equipment

Industry Classification by Activity (Product)	ADR Class Number	Old Law Cost of Capital	New Law Cost of Capital	% Change in Cost of Capital
Mining	10	0.0435	0.0739	70.02
Oil Production	13.2	0.0435	0.0738	69.80
Construction	15.1	0.0438	0.0699	59.44
Grain Manufacturing	20.1	0.0427	0.0758	77.53
Tobacco Manufacturing	21	0.0429	0.0705	64.52
Textiles (woven fabric)	22.2	0.0423	0.0674	59.33
Wood Products	24.4	0.0430	0.0713	65.68
Pulp and Paper	26.1	0.0423	0.0674	59.33
Printing	27	0.0427	0.0697	63.12
Chemicals	28	0.0424	0.0634	49.55
Petroleum Refining	13.3	0.0427	0.0759	77.84
Rubber Products	30.1	0.0424	0.0679	60.05
Leather Products	31	0.0433	0.0728	68.21
Glass Products	32.1	0.0428	0.0698	63.35
Stone/Clay Products	32.3	0.0428	0.0698	63.35
Ferrous Metals	33.1	0.0425	0.0742	74.70
Non-Ferrous Metals	33.2	0.0425	0.0683	60.76
Fabricated Metals	34	0.0429	0.0705	64.52
Machinery	35	0.0429	0.0704	64.28
Electronics Products	36.2	0.0427	0.0649	51.86
Motor Vehicles	37.11	0.0425	0.0684	61.00
Aerospace	37.2	0.0431	0.0718	66.60

Potentially Offsetting Efficiency Gains

Because the 1986 Act increased the cost of capital for equipment by such a large amount, the expected adverse impacts on new investment and productivity growth should also be substantial. Thus, the question recurs on the issue of potentially offsetting efficiency gains.

Congress relied greatly on Treasury's assertion that prior law was so grossly *nonneutral* across industry lines and even among assets in the same industry as to cause severe "compositional inefficiencies" in the mix of assets being used. In effect, the Treasury contended that the ITC and ACRS depreciation had altered the tax treatment of investments in equipment to the point that inefficient investment choices were being made. The Treasury then hypothesized that by correcting these nonneutralities tax reform would cause a more efficient mix of capital equipment and more efficient choices as between capital equipment and other investment opportunities. Presumably, these compositional efficiency gains were expected to produce an overall level of output equal to or greater than under prior law.

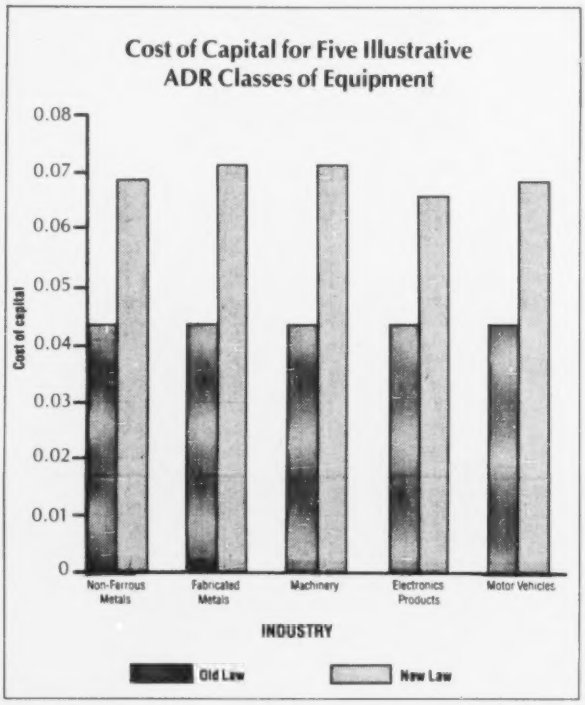
Analysis does not support such an aggressively optimistic view. The table above indicates that within the capital equip-

[4] There are roughly 50 ADR classes that represent industry activities or subactivities, and an additional number of asset-specific ADR classifications. The 22 broad industry-wide ADR classes in the table were chosen because the data set on the value of tax depreciation and the data set on the rate of capacity decay correspond (i.e., in the case of each industry all the equipment that was five-year ACRS property under prior law is contained in a single ADR class for that industry and each industry is assigned a single aggregate rate of capacity decay based on a weighted average of specific assets). The data set on capacity decay includes other industries, but in those cases the industry's equipment is in more than one ADR class and under the 1986 Act the value of tax depreciation varies from one class to another. If the relative amounts of each additional industry's investment in each class were determined, it would be possible to calculate the cost of capital under the 1986 Act for those industries as well. The overall results would not be substantially different from the results shown in the table for 22 industries.

ment category, prior law was significantly more neutral from one ADR class to another than the 1986 Act. The New Law column shows substantial variations in the cost of capital from one ADR class to another, whereas the Old Law column shows very little variation among those same broad industry classes.[5] It is true that under prior law there was some substantial variation in the cost of capital for specific assets *within* a broad industry class, but the mix of assets utilized by any industry is dictated primarily by the production process (e.g., a drill press cannot do the work of a basic oxygen furnace). Therefore, the potential under prior law for tax-induced substitutions of assets that result in inefficiency was very limited. Moreover, to the extent that there was under prior law any significant intra-industry nonneutrality in the treatment of capital equipment, it is clear that the 1986 Act did not cure this defect. The reduced version of ACRS in the 1986 Act as well as the earlier CCRS and RCRS proposals by the Treasury are all based on ADR classes that contain the same mix of assets as before.

Looking beyond the capital equipment category, little encouragement is to be found in the broader contention by the Treasury that substantial *net* gains are to be derived from correcting the asserted nonneutrality of prior law as between capital equipment and other investment choices. Let us face it, the underlying premise would have to be that prior law taxed all capital equipment, or a major portion of it, too little and that there was too much investment in capital equipment, or in certain kinds, compared to investment in land, structures and inventories. Further, the 1986 Act undertook to cure this asserted defect by substantially increasing taxes on capital equipment instead of by merely decreasing taxes on other investment choices thought to be taxed too heavily. When a *gain* from greater compositional efficiency is sought to be achieved in that manner, there is an associated *loss* to the economy from the intertemporal inefficiency which results when firms are caused not to make investments in capital equipment that would be productive, that would make economic sense and that would be made but for the substantial tax increase imposed by the 1986 Act.

Assuredly, the 1986 Act did reduce the marginal tax rate for corporations, but the 1986 Act also imposed on corporations a large overall tax increase as the *net* result of rate reduction and diminished capital cost recovery. It goes without saying that corporations with relatively high ratios of new capital equipment investment to profit will bear most of the substantially increased tax burden. If corporation A has a relatively low ratio of new capital equipment investment to profit, the reduced marginal tax rate will be the dominant factor and corporation A should have a tax decrease relative to prior law. If, on the other hand, corporation B has a relatively high ratio of new capital equipment investment to profit, the diminished capital cost recovery will be the dominant factor and corporation B should have a tax increase. Broadly speaking, in order to maximize its after-tax profit corporation B should seek to be more like corporation A. That transformation might to some extent be achieved by belt-tightening, working harder and other laudable efficiencies to increase the level of its pre-tax profit relative to its pre-established level of new capital equipment investment. Most probably, however, corporation B's response primarily will be to reduce its level of new capital equipment investment. Unfortunately, seeking to maximize profit in this manner does not necessarily maximize output or result in an overall greater "welfare benefit" to the economy at large.



[5] That result obtains because the ITC and five-year ACRS depreciation applied uniformly to all these classes and the data set on industry-wide capacity decay indicates that the aggregate mix of assets in *all* industries declines in value over time at fairly close to the same rate. Thus, the basic comparison between the Old Law and the New Law columns would not be substantially changed if additional broad ADR classes were included. Although "asset-specific" costs of capital would vary greatly under both prior law and the 1986 Act, industry-wide comparisons are the most relevant to the neutrality issue.

Implications for International Competitiveness

To state the obvious, the ability of the United States to compete in international markets must be based on "comparative advantage" as the economy develops and improves technologies, and then produces products through a combination of raw resources and the services of capital and labor. The United States probably still has some comparative advantage in technology although that is now severely challenged. While the United States once enjoyed some comparative advantage in raw resources, resources are now generally competitive throughout most of the world. The United States never in modern times enjoyed a comparative advantage in the cost of labor and should not expect to.

With the 1986 Act, we now seem to have relinquished our comparative advantage in the cost of capital, also.

Appendix

The methodology and data used in these calculations were chosen to recreate, to the extent that information is publicly available, Treasury's technique in calculating the cost of capital.

The Model

The actual equations are identical to those found in the following papers:

1. "The Indexation of Interest, Depreciation and Capital Gains: A Model of Investment Incentives" by Don Fullerton, American Enterprise Institute, AEI occasional papers; Working Paper #5.
2. "Differential Effects of the Accelerated Cost Recovery System on Investment: A Survey, with Implications for Understanding Effects on High Technology Investment" by Don Fullerton and Andrew Lyon, unpublished.
3. "The Impact of Fundamental Tax Reform on the Allocation of Resources" by Don Fullerton and Yolanda Henderson, NBER Working Paper #1904.
4. "A Disaggregate Equilibrium Model of the Tax Distortions among Assets, Sectors, and Industries" by Don Fullerton and Yolanda Henderson, NBER Working Paper #1905.

In these papers, the cost of capital comes from the firm's equilibrium condition:

$$(1-k)q = \int_0^{\infty} (1-u)(c-wq)e^{(\pi-\delta)t}e^{-i(1-u)t}dt + uazq \qquad (1)$$

where

- q = asset price
- u = the corporate tax rate
- k = the rate of investment tax credit
- z = the present value of depreciation deductions per dollar of investment
- a = the amount of basis adjustment associated with the ITC
- w = the rate of local property tax
- π = the inflation rate
- δ = the rate of capacity decay
- c = the gross rate of income generation
- i = the nominal discount rate

The cost of capital, rho, can be derived from equation (1):

$$rho = c/q - \delta = \frac{i(1-u)-\pi+\delta}{1-u}(1-k-uaz) + w - \delta \qquad (2)$$

Individual taxes enter equation (2) through the formulation of the firm's discount rate. This is determined from an expression for the average real net of tax return to capital at the individual level, s:

$$s = d_d[i(1-\tau_d)] + d_{re}[i(1-u)(1-\tau_{re})] + d_{ns}[i(1-u)(1-\tau_{ns})] - \pi \qquad (3)$$

where

- d_d = the share of investment funded by debt
- d_{re} = the share financed by retained earnings
- d_{ns} = the share funded by new shares paying dividends
- τ_d = the tax rate on debt
- τ_{re} = the effective tax on retained earnings at the individual level
- τ_{ns} = the tax rate on dividends

s is set by assumption and i is solved for in equation (3) and inserted into equation (2) to determine the cost of capital.

The Data

The assumed hurdle real after-tax rate of return to individuals, s, (an economy-wide average) is 4 percent. The inflation rate is also set at 4 percent.

Tax rates are based on economy-wide averages and come from various papers by Yolanda Henderson and Don Fullerton:

Combined Federal, State and Local Marginal Tax Rates

	Old Law	New Law
Corporate	49.5%	38.3%
Individual		
Interest received	23.1%	19.5%
Dividends Received	29.2	23.5
Capital Gains	5.2	9.1
Property Tax	.768%	

Data on financial structure also comes from Fullerton. It is assumed that 33.7 percent of investment is financed by debt, 61.4 percent by retained earnings, and 4.9 percent by new shares paying dividends. Notice that the result of this assumption is that the dividend tax becomes relatively unimportant. Empirically, then, the results will tend towards the "new view" of the cost of capital where dividend taxes are held to be not important vis-a-vis taxes on capital gains. The new view, however, is not an explicit assumption of this paper.

Calculation of the present values for depreciation is based on explicit discreet depreciation deductions. Fullerton uses a continuous time representation. There is some debate as to the proper discount rate for the first-year discount. Some researchers (Hulten) discount fully. Fullerton's continuous model allows partial discounting. Some researchers do not discount the first year at all. A full discount is used here. As long as consistency is maintained, the absolute results will be slightly affected but the relative results will not be affected.

The cost of capital calculation is performed for 22 industries. These are industries where one ADR classification covers all equipment (five year property under prior law) in the industry and there is a corresponding single value for capacity decay from the data set employed. As such each industry has one tax depreciation treatment and one capacity decay rate. Other industries could easily be modelled by calculating the proportion of assets in each new depreciation class and then constructing a weighted average for the present value of depreciation. The results would not be qualitatively different from the results reported here. Consider, for instance, the communications industry. Much of its property would be in ADR classes .12 and .13 as well as 48.11-48.45. Much of the property would be in the 5-, 7-, and 10-year classes under current law and would have been five-year property under old law. The estimated capacity decay rate is 12.2 percent per year, similar to the paper and textile industries. It is to be expected that changes in the cost of capital from old to new law would be qualitatively the same as with other industries.

Industry-wide rates of capacity decay, used to define patterns of income generation, come from calculations by Jane Gravelle at the Congressional Research Service. In our calculations we employ Gravelle's average decay rates and calculate the cost of capital for each industry. Fullerton/Henderson, on the other hand, calculate the cost of capital for each asset in each industry using asset specific decay rates (from Hulten/Wykoff) and then average these asset costs of capital for each industry. Since Gravelle uses the same asset specific decay rates in calculating her average rates, as long as the same weights are used, the two techniques are algebraically identical. To see this consider the following:

Consider industry i which has j assets. Under the Fullerton/Henderson formulation the cost of capital is:

$$rho_i = \sum_j \omega_j \left\{ \frac{i(1-u)+\delta_j-\pi}{1-u}(1-k_j-uaz_j) + w_j - \delta_j \right\} \qquad (4)$$

where ω_j are the weights assigned to each asset type.

By definition i, u, π, and a are the same for all assets. Also, Fullerton/Henderson assume one rate of property tax, w, for all equipment. Under old law, for the industries represented here, equipment was in the five-year category and all investment qualified for an ITC. Under new law, which is based on ADR lives, all equipment in the industries represented is in the same category. Accordingly, equation (4) can be written as:

$$rho_i = \frac{i(1-u)+\sum_j \omega_j\delta_j - \pi}{1-u}(1-k-uaz) + w - \sum_j \omega_j\delta_j \qquad (5)$$

But this is exactly the formula employing an industry-wide capacity decay rate in the cost of capital formula.

The only difference, thus, between the Fullerton/Henderson formulation and ours is the first-year discount issue. This will have a slight effect on the absolute level of the estimates but not on the relative levels of the cost of capital for both tax regimes.

(BUDGET FAT, *from page 1*)

if the economy remains strong until then. Whether a balanced budget would be appropriate, fiscal policy is an important but separate question.

In examining the options for spending reduction, it is useful to divide the budget into a handful of categories representing the major policy choices available to the government. The table on page 4 shows that entitlements and other mandatory spending are the largest portion of the budget. CBO has projected that unless entitlements are cut back, they will account for more than half of all Federal spending by 1992. Defense is another category that has claimed a larger share of the budget, but spending for it is expected to stabilize in the next five years. Interest payments rank third in budget size, but these can only be trimmed through savings in other parts of the budget or more favorable interest rate trends than projected. Discretionary nondefense spending has lost budget share through freezes and retrenchments, but the CBO report strongly suggests that additional savings can be achieved.

Entitlements

Entitlements are not uncontrollable; they can be cut by changing the laws that mandate these payments. It does not suffice, however, to budget for lower entitlements; modifications have to be made in the laws themselves.

CBO has concentrated its deficit-reduction options in the areas where expenditures are projected to grow steeply in the next five years unless the laws are changed.

Medicare Costs

These have tripled from $25 billion in 1978 to $78 billion in the current fiscal year and are projected to soar to almost $140 billion only five years from now. CBO offers eight options for trimming Medicare expenditures. **More than $4 billion can be saved each year by basing payments on more accurate cost data; another $15 billion can be saved over a five-year period by requiring beneficiaries to pay 50 percent of the cost of physicians' services—the percentage when Medicare was established—rather than only 25%.** Additional billions can be cut from Federal spending by indexing the deductible paid by Medicare patients for inflation, and by changing the way Medicare reimburses hospitals for medical education and capital investments.

None of these cutbacks would be

(Continued on page 4)

THE FRONT BURNER

By Robert C. Brown, President Tax Foundation

"Variations on a Theme"

Don't raise the bridge. Lower the water." The U.S. Congress is in the process of working a new variation on this old saw. It's called, "Don't cut spending. Raise the deficit reduction targets." Any way you look at it, the suggestion of gutting the Gramm-Rudman-Hollings deficit reduction measure a year after it was passed has to rank as one of the fastest about-faces in history.

Admittedly, it is virtually certain that Congress will not even come close to hitting the $108 billion GRH target for fiscal 1988. What galls is the rank hypocrisy with which Congress voted GRH, achieved the 1987 target—by its own admission—largely through "blue smoke and mirrors," and then returned home to run for reelection on the basis of its historic budget cutting effort. Nevertheless, politics is the art of the possible, so we must now ask what is possible when it comes to deficit reduction.

Maybe Fed Chairman Paul Volcker had the right idea when he told the Senate Budget Committee last month that he would settle for real reduction of the deficit to $130 billion in fiscal 1988 instead of a sham reduction to $108 billion "that realistically is $150 billion."

The Chairman also made two other points that we—and Congress—should not be allowed to forget: First, let the $108 billion GRH target hang out there as evidence of the duplicity with which the fiscal policy process is riddled. Remind Congress of how little credence its promises deserve. Second, make certain that accounting legerdemain and gimmicks such as asset sales are not used in calculating the $130 billion which the leadership now *claims* is achievable.

Tax Foundation's Shadow Committee on the Federal Budget summarized the situation to date this way in its February 12th report: "The Federal government did not meet the GRH target in 1986, and it will not meet the 1987 target. It is highly doubtful that the $108 billion deficit level for fiscal 1988 will be met." The only revision needed in that assessment would be to upgrade highly doubtful to "highly probable" that the target will not be met.

Congress has failed to hit the bull's-eye—and is clearly seen to have defaulted on its promise to the American electorate. We may have to settle for merely hitting the target, not the bull's-eye, this time round. But we ought not to allow the politicians to forget that the target did indeed have a bull's-eye and that we know that they missed it by a mile. The public—and the Members—need to be reminded that, if the U.S. Congress gives so little weight to its own commitments, how can they expect us to take them seriously?

The Trend in Federal Spending[1]
($ in billions; % of total spending)

	Actual				CBO Projections			
	1968		1978		1988		1992	
	$	%	$	%	$	%	$	%
Entitlements	53	30	220	48	512	48	660	51
Defense	82	46	105	23	290	27	346	27
Interest	11	6	35	8	141	13	154	12
Nondefense Discretionary	43	24	122	27	185	17	220	17

[1]Percentages add up to more than 100% because offsetting receipts are not included in the table. Offsetting receipts are budgeted as "negative expenditures."
Source: Congressional Budget Office

(BUDGET FAT, from page 3)

painless. Some costs would be shifted to recipients of medical services; others to providers. But without sizable cuts, Medicare will continue to grow much faster than the rate of inflation and will consume an ever-growing share of the budget.

COLAs

Enormous savings could be realized by limiting the cost-of-living adjustments (COLAs) in various entitlement programs. COLAs drive expenditures up automatically each year. When inflation is high and economic growth low—a situation that occurred in the late 1970s and early 1980s—COLAs cause entitlements to rise much more steeply than Federal revenues. CBO estimates that the incessant rise in entitlement spending can be moderated by restricting COLAs to low-income programs. **Over five years, $55 billion would be saved by limiting COLAs to two-thirds of the increase in the consumer price index; the savings would be $77 billion if the COLA was two percentage points below the consumer price increase.**

Agriculture

Spending on agricultural programs has soared well above expected levels in recent years. Farm price support programs now draw about $25 billion a year from the Federal Treasury. These payments could be reduced by targeting payments to small farmers—most of the money now goes to big producers; by lowering crop support prices; by cutting the link between crop production and income support for farmers. If some of these options were adopted, not only would government spending drop, but the massive crop surpluses would diminish.

Defense Spending

Congress is unlikely to approve major spending reductions that do not take from both "guns and butter." In recent years, Congress has provided much less for defense than the White House has requested, and the 1988 budget is likely to continue this pattern. **But the Pentagon has sought to stretch its defense dollars without reducing force levels or cancelling major weapons systems.** CBO has devised more than 20 options for reducing defense procurement and moderating the growth in military forces. It suggests that military readiness can be maintained if the variety of aircraft competing for procurement funds were reduced. At the present time, for example, the Air Force is buying two different tactical aircraft (the F-15 and the F-16), is preparing to spend $27 billion on a new military transport (the C-17) while continuing to invest billions in the C-5 transport, and is upgrading the B-52 bomber while taking delivery of the B-1 bomber and preparing for the next generation's "stealth" bomber.

Similar multiple weapons systems procurement and development are underway in other services. The Army is buying both Apache and Blackhawk helicopters while launching a $60 billion program for an entirely new aircraft. The Navy is developing a new tilt rotor aircraft while reducing its "buys" of existing aircraft to inefficient levels.

CBO also offers a menu of ideas for cutting research and development costs as well as the amounts spent on military construction and operations and maintenance.

Nondefense Discretionary Programs

Although this category accounts for a declining share of total expenditures, the Federal government spends more than $180 billion on numerous discretionary domestic programs. CBO identifies a number of opportunities for reducing spending in programs whose goals have either been achieved or could be met with less expenditures. These opportunities include phasing out subsidies for crop and flood insurance; eliminating energy conservation grants; reducing rural electrification subsidies; and cutting back on energy research and development. Over a five-year period, about $18 billion could be saved by adopting these and other efficiencies.

Even larger savings could be achieved by ending various subsidies. These include subsidies to the postal service, various power facilities, economic development (EDA) and urban development action grants, and assistance to Amtrak and local transit operations. Finally, billions of dollars can be saved by targeting Federal aid to education, community development grants, and student aid to more needy recipients.

All told, the CBO report demonstrates that Federal spending can be cut. But there is a big difference between devising and implementing cutback options. **One reason why there is so much to cut from the budget is that so little genuine cutting was done in the past. But if Congress has the will to control Federal spending, the CBO options point to the way that it can accomplish this objective.**

(FAMILY'S TAXES, from page 1)

government will pay out 32 cents for "income security" programs for each $1 this taxpayer sends to Washington, a total of $2,387.

National defense will cost $282.2 billion—or 27 cents out of each tax dollar. For the moderate-income taxpayer described here, this amounts to $2,024.

Interest on the public debt ranks third—$137.5 billion; for this worker, the tab will be $986, over 13 cents per dollar of taxes.

Health outlays are estimated to total $111.3 billion—$798 for the family, or 11 cents for each tax dollar paid.

These four largest programs will claim more than 80 percent of all Federal spending.

However, direct levies account for only about three-fifths of the Federal tax take. To these must be added such indirect taxes as employer's share of Social Security taxes; corporate income taxes; excise taxes on such items as gasoline, liquor and tobacco; and miscellaneous levies. These will take another $2,951 from the moderate earner's paycheck.

Direct and indirect Federal taxes claim over 26 percent of this family's annual income. But even that does not tell the whole story. All told, current Federal taxes and borrowing add up to nearly 32 percent of this moderate-income family's earnings.

The table on page 1 provides further details.